



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application of: Shai N. Gozani et al.
Serial No.: 10/075,217
Filing Date: 02/14/2002
Title: APPARATUS AND METHOD FOR PERFORMING NERVE
CONDUCTION STUDIES WITH LOCALIZATION OF
EVOKED RESPONSES
Group Art Unit: 3736
Examiner: David J. McCrosky
Attorney's Docket No.: NEURO-NRO-008

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED
MAY 10 2004
TECHNOLOGY CENTER R3700

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR 1.56, 1.97 and 1.98, Applicants hereby make the following documents of record in the above-identified application:

U.S. Patents

- (1) U.S. Patent No. 3572322 issued 03/23/1971 to Wade
- (2) U.S. Patent No. 3886931 issued 06/03/1975 to Rodler
- (3) U.S. Patent No. 4807643 issued 02/28/1989 to Rosier
- (4) U.S. Patent No. 4811742 issued 03/14/1989 to Hassel et al.
- (5) U.S. Patent No. 5050612 issued 09/24/1991 to Matsumura
- (6) U.S. Patent No. 5080099 issued 01/14/1992 to Way et al.
- (7) U.S. Patent No. 5092344 issued 03/03/1992 to Lee
- (8) U.S. Patent No. 5099844 issued 03/31/1992 to Faupel
- (9) U.S. Patent No. 5131401 issued 07/21/1992 to Westenskow et al.
- (10) U.S. Patent No. 5143081 issued 09/01/1992 to Young et al.
- (11) U.S. Patent No. 5203330 issued 04/20/1993 to Schaefer et al.
- (12) U.S. Patent No. 5215100 issued 06/01/1993 to Spitz et al.
- (13) U.S. Patent No. 5255677 issued 10/26/1993 to Schaefer et al.
- (14) U.S. Patent No. 5379764 issued 01/10/1995 to Barnes et al.
- (15) U.S. Patent No. 5466256 issued 11/14/1995 to McAdams et al.
- (16) U.S. Patent No. 5467768 issued 11/21/1995 to Suda et al.
- (17) U.S. Patent No. 5496363 issued 03/05/1996 to Burgio et al.

NEURO-NRO-008

- (18) U.S. Patent No. 5511553 issued 04/30/1996 to Segalowitz
- (19) U.S. Patent No. 5540235 issued 07/30/1996 to Wilson
- (20) U.S. Patent No. 5560372 issued 10/01/1996 to Cory
- (21) U.S. Patent No. 5775331 issued 07/07/1998 to Raymond et al.

Foreign Patents

- (22) European Patent No. 0 025 222 A2, published 03/18/1981 by SEVERINGHAUS
- (23) European Patent No. 0 436 121 A1, published 07/10/1991 by JAKLITSCH
- (24) PCT International Publication No. WO 91/16001, by DIRKSEN published 10/31/1991
- (25) PCT International Publication No. WO 92/03974, by WESTENSKOW published 03/19/1992

Other Documents

- (26) Testerman, Roy, "Method of Measuring Blood Glucose Level by Sensing Evoked Action Potentials in Peripheral Nerve," Research Disclosure, 227:92, Article No. 22728, March 1983.
- (27) Oh, Shin J., M.D., "Clinical Electromyography: Nerve Conduction Studies," (Williams & Wilkins, 2nd Ed., 1993).
- (28) Gilliat, R.W. and Willison, R.G., "Refractory and Supernormal Periods of the Human Median Nerve," (J. Neurol. Neurosurg. Psychiat., 2:1963) pp. 136-147.
- (29) Lindstrom, P. and Brismar, T., "Mechanism of Anoxic Conduction Block in Mammalian Nerve," (Acta Physiol Scan, 141:1991), pp. 429-433.
- (30) Basmajian, John V., M.D., and De Luce, Carlo J., Ph.D., "Muscles Alive: Their Functions Revealed by Electromyography," (Williams & Wilkins, 5th Ed., 1995).
- (31) Fujisawa, M., D.D.S. et al., "Surface Electromyographic Electrode Pair With Built-In Buffer-Amplifiers," (The Journal of Prosthetic Dentistry, vol. 63, No. 3, Mar. 1990), pp. 350-352.
- (32) Seneviratne, K.N. and Peiris, O.A., "The Effect of Ischaemia on the Excitability of Human Sensory Nerve," (J. Neurol. Neurosurg. Psychiat., 31:1968), pp. 338-347.
- (33) Shefner, Jeremy, M. M.D., "The Use of Sensory Action Potentials in the Diagnosis of Peripheral Nerve Disease," (Arch-Neurol -- vol. 47, Mar. 1990); pp. 341-348.
- (34) Brodie, Chaya and Sampson, S.R., "Contribution of Electrogenic Sodium-Potassium ATPase to Resting Membrane Potential of Cultured Rat Skeletal Myotubes," (Brain Research, 347:1985), pp. 28-35.

- (35) Stewart, Mark A., et al., "Substrate Changes in Peripheral Nerve During Ischemia and Wallerian Degeneration," (Journal of Neurochemistry, vol. 12, 1965), pp. 719-727.
- (36) Bostock, H. et al., "Changes in Excitability and Accomodation of Human Motor Axons Following Brief Periods of Ischaemia," (Journal of Physiology, 441:1991 Great Britain), pp. 513-535.
- (37) Nishimura, Suzushi, et al., "Clinial Application of an Active Electrode Using an Operational Amplifier," (IEEE Transactions on Biomedical Engineering, vol. 39, No. 10, Oct. 1992), pp. 1096-1099.
- (38) <http://www.aiso.com/neumed/overview.html>
- (39) <http://www.cs.msstate.edu/~csmith/biomech/nrve-cond.html>
- (40) <http://www.asoi.com/neumed/p.html>
- (41) <http://www.netspace.org/~simon/Pictures.htm#NCV>
- (42) "Now Diagnose and Monitor the Clinical Progress of Compression Neuropathies Such as Carpal Tunnel Syndrome - in the Office or Clinic", Neurotron Medical, Lawrenceville NJ (product Literature)(1991).

Copies of documents 1-20 and 22-42, which are listed on the accompanying Form PTO-1449 (three pages), were previously submitted to, or cited by, the Office in U.S. Application Serial No. 09/022,990. A copy of document 21 is enclosed herewith. Applicants respectfully request that these documents be fully considered by the U.S. Patent and Trademark Office during the examination of this application and printed on any patent which may issue on this application. Applicants also respectfully request that a copy of Form PTO-1449 (three pages), as considered and initialed by the Examiner, be returned to the undersigned with the next communication.

It is believed that this disclosure complies with the requirements of 37 CFR 1.56, 1.97 and 1.98. If for any reason the Examiner considers otherwise, it is respectfully requested that the undersigned be contacted by the Examiner by telephone in order that any deficiencies may be expeditiously remedied.

A check in the amount of One Hundred Eighty Dollars (\$180.00) payable to the Commissioner of Patents and Trademarks also is enclosed herewith to cover the fee due in connection with this submission.

Please charge any additional fees due in connection with this submission, or credit any overpayment, to Deposit Account No. 16-0221. A duplicate copy of this submission is enclosed for the convenience of the Examiner.

Thank you.

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED
WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL,
POSTAGE PREPAID, IN AN ENVELOPE ADDRESSED TO:
COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA
22313-1450, ON:

April 29, 2004

(DATE OF DEPOSIT)

James A. Sheridan

(NAME OF ATTORNEY)

James A. Sheridan 4/29/04

(SIGNATURE)

April 29, 2004

Respectfully submitted,

James A. Sheridan 4/29/04

James A. Sheridan
Registration No. 43,114
Pandiscio & Pandiscio
470 Totten Pond Road
Waltham, MA 02154
Tel. (781) 290-0060

KK/NEURONRO008.IDS

NEURO-NRO-008

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute for form 1449A/PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Application Number	10/075,217	
			Filing Date	02/14/2002	
			First Named Inventor	Shai N. Gozani et al.	
			Group Art Unit	3736	
			Examiner Name	David J. McCrosky	
Sheet	1	of	3	Attorney Docket Number	NEURO-NRO-008

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		3572322		Wade	03-23-1971	
		3886931		Rodler	06-03-1975	
		4807643		Rosier	02-28-1989	
		4811742		Hassel et al.	03-14-1989	
		5050612		Matsumura	09-24-1991	
		5080099		Way et al.	01-14-1992	
		5092344		Lee	03-03-1992	
		5099844		Faupel	03-31-1992	
		5131401		Westenskow et al.	07-21-1992	
		5143081		Young et al.	09-01-1992	
		5203330		Schaefer et al.	04-20-1993	
		5215100		Spitz et al.	06-01-1993	
		5255677		Schaefer et al.	10-26-1993	
		5379764		Barnes et al.	01-10-1995	
		5466256		McAdams et al.	11-14-1995	
		5467768		Suda et al.	11-21-1995	
		5496363		Burgio et al.	03-05-1996	
		5511553		Segalowitz	04-30-1996	
		5540235		Wilson	07-30-1996	
		5560372		Cory	10-01-1996	

RECEIVED
MAY 10 2004
TECHNOLOGY CENTER P3700

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
		EP	0 025 222	A2	SEVERINGHAUS	03-18-1981		
		EP	0 436 121	A1	JAKLITSCH	07-10-1991		
		WO	91/16001		DIRKSEN	10-31-1991		
		WO	02/060352		WESTENSKOW	03-19-1992		

Examiner Signature		Date Considered	
-------------------------------	--	----------------------------	--

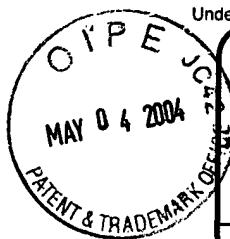
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08B (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute for form 1449B/PTO		Compleat if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/075,217		
		Filing Date	02/14/2002		
		First Named Inventor	Shai N. Gozani et al.		
		Group Art Unit	3736		
		Examiner Name	David J. McCrosky		
Sheet	2	of	3	Attorney Docket Number	NEURO-NRO-008

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		TESTERMAN, ROY, "Method of Measuring Blood Glucose Level by Sensing Evoked Action Potentials in Peripheral Nerve," Research Disclosure, 227:92, Article No. 22728, March 1983.	
		OH, SHIN J., M.D., "Clinical Electromyography: Nerve Conduction Studies," (Williams & Wilkins, 2nd Ed., 1993).	
		GILLIAT, R.W. and WILLISON, R.G., "Refractory and Supernormal Periods of the Human Median Nerve," (J. Neurol. Neurosurg. Psychiat., 2:1963) pp. 136-147.	
		LINDSTROM, P. and BRISMAR, T., "Mechanism of Anoxic Conduction Block in Mammalian Nerve," (Acta Physiol Scand, 141:1991), pp. 429-433.	
		BASMAJIAN, JOHN V., M.D., and De Luce, Carlo J., Ph.D., "Muscles Alive: Their Functions Revealed by Electromyography," (Williams & Wilkins, 5th Ed., 1995).	
		FUJISAWA, M., D.D.S. et al., "Surface Electromyographic Electrode Pair With Built-In Buffer-Amplifiers," (The Journal of Prosthetic Dentistry, vol. 63, No. 3, Mar. 1990), pp. 350-352.	
		SENEVIRATNE, K.N. and Peiris, O.A., "The Effect of Ischaemia on the Excitability of Human Sensory Nerve," (J. Neurol. Neurosurg. Psychiat., 31:1968), pp. 338-347.	
		SHEPNER, JEREMY, M. M.D., "The Use of Sensory Action Potentials in the Diagnosis of Perihelal Nerve Disease," (Arch-Neurol -- vol. 47, Mar. 1990); pp. 341-348.	
		BRODIE, CHAYA and SAMPSON, S.R., "Contribution of Electrogenic Sodium-Potassium ATPase to Resting Membrane Potential of Cultured Rat Skeletal Myotubes," (Brain Research, 347:1985), pp. 28-35.	
		STEWART, MARK A., et al., "Substrate Changes in Peripheral Nerve During Ischemia and Wallerian Degeneration," (Journal of Neurochemistry, vol. 12, 1965), pp. 719-727.	
		BOSTOCK, H. et al., "Changes in Excitability and Accomodation of Human Motor Axons Following Brief Periods of Ischaemia," (Journal of Physiology, 441:1991 Great Britain), pp. 513-535.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/088 (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 3

Complete if Known

Application Number	10/075,217
Filing Date	02/14/2002
First Named Inventor	Shai N. Gozani et al.
Group Art Unit	3736
Examiner Name	David J. McCrosky
Attorney Docket Number	NEURO-NRO-008

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		NISHIMURA, SUZUSHI, et al., "Clinical Application of an Active Electrode Using an Operational Amplifier," (IEEE Transactions on Biomedical Engineering, vol. 39, No. 10, Oct. 1992), pp. 1096-1099.	
		http://www.aiso.com/neumed/overview.html	
		http://www.cs.msstate.edu/~csmith/biomech/nrve-cond.html	
		http://www.asoi.com/neumed/p.html	
		http://www.netSPACE.org/~simon/Pictures.html#NCV	
		"Now Diagnose and Monitor the Clinical Progress of Compression Neuropathies Such as Carpal Tunnel Syndrome - in the Office or Clinic", Neurotron Medical, Lawrenceville NJ (product Literature) (1991).	

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.